REMARKS

The claims are 17-19, 21, 22, 24, 26, 27, 29-36, 38, 40 and 41-42, with claims 17 and 18 being independent. Claims 1-16, 20, 23, 25, 28 37 and 39 have been cancelled without prejudice or disclaimer. Claims 17-19, 24, 26, 27, 38 and 40 have been amended. Claims 41 and 42 have been added. Support for the amendments may be found throughout the specification. For example, support for the amendments to claims 17 and 18 may be found in the specification at page 8, lines 1-2, page 19, lines 33-34, and page 21, lines 22-29. The recited dosage range in claims 17 and 18 was determined in accordance with the recitation in the specification:

> "wherein the to total daily dosage for a 70 kg adult will generally be in the range of 0.1 to 6000 mg, and more usually about 1 to 1500 mg."

Dividing the dosage range of 1 mg - 1500 mg by 70 kg, provides the recited daily dosage range expressed in mg/kg. Applicants respectfully submit that expressing the dosage range in this manner does not add new matter and is consistent with the disclosure of the present specification. It will be understood that the claimed invention is useful to treat individuals having weights higher and lower than 70 kg, and that the recited dosing range for a 70 kg human is exemplary of the wt/wt (mg/kg) dosing range.

Support for the amendments to claims 19 and 27 may be found in the specification at page 8, lines 1-2. Support for the amendments to claims 24, 26, 38 and 40 may be found in the specification at page 20, lines 3-5. Support for claims 41 and 42 may be found in the specification at page 87, lines 1-4 and page 59, lines 14-19. No new matter has been added.

An interview in this case was conducted on May 12, 2003. A copy of the Interview Summary is enclosed herewith. Discussed was the differences in scope between the claims of U.S. Patent No. 5,002,953, U.S. Patent No. 6,288,095 (US '095) and the subject application. The Examiner indicated a need to review the prosecution history of US '095 before conducting further discussion. Due to difficulties in obtaining the USPTO copy of the file wrapper for US '095 and the expiration of the 3 month time for reply, Applicant is filing a response to the outstanding office action in an effort to advance the prosecution of this case. At the Examiner's request, Applicant can provide the Examiner with a copy of Applicant's filewrapper for US '095.

Applicant notes that a Terminal Disclaimer was submitted to the USPTO, together with other papers (including an Amendment, a request for change of inventorship and an Information Disclosure Statement), in a submission dated December 19, 2002. It appeared that at least some of these papers were not received by the Examiner at the time of mailing of the outstanding

office action. Applicant's attorney provided duplicate copies of the all of the documents (including copies of the cited art) to the Examiner in advance of the May 12, 2003 interview.

Applicant notes that the Information Disclosure Statement, mailed December 19, 2002 has not been considered by the Examiner. Applicant respectfully submits that no fee is due for consideration of the Information Disclosure Statement provided to the Examiner prior to the May 12, 2003 interview. These papers were timely filed by the Applicant and received in due course by the USPTO. It is respectfully requested that the information cited in the Information Disclosure Statement be considered by the Examiner and that a copy of the Form PTO-1449 be returned indicating that such information has been considered.

The Examiner has rejected claims 17-40 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 53 and 55 of U.S. Patent No. 5,002,953. Applicant understands this rejection to be a rejection of all of the claims over claim 53 and all of the claims over claim 55, but not a rejection of all of the claims over a combination of claims 53 and 55 of US '953. The Examiner acknowledges that the claims are not identical, but contends that the claims are not patentably distinct because the compounds' use for hyperglycemia is claimed. The Examiner further contends that the specification allegedly "properly equates" hyperglycemia and Type II diabetes. Applicant respectfully traverses this rejection and the Examiner's characterization of hyperglycemia and Type II diabetes.

Applicant respectfully submits that pending claims 17-40 in the subject application are nonobvious over claims 53 and 55 of U.S. Patent No. 5,002,953.

M.P.E.P §804 sets out the factual inquiries for determining whether double patenting exists. The first steps in the analysis consist of determining the scope and content of the patent claim(s) and prior art relative to the claim(s) in the application at issue, and the differences thereof. The last step is to evaluate any objective indicia of nonobviousness. Because of the significant differences between the scope of the claims at issue, Applicant makes no determination of the level of skill in the pertinent art.

Attached hereto is a claim chart comparing claim 53 of US 5,002,953 and claim 17 of the subject application. For the purposes of this comparison, Applicant respectfully submits that claim 53 is substantially representative of claim 55 of US '953 and that claim 17 is substantially representative of claim 18 of the subject application.

Applicant submits that there are notable differences between the scope and content of the claims of US '953 and the claims of the subject application that render the pending claims patentably distinct. A primary difference between these claims lies in the scope of the

compounds that may be used in the claimed methods of treatment and the scope of the administration of the compounds.

Claims 53 and 55 of US '953 recite the use of a compound of formula (I), as recited in claim 1, or a tautomeric form thereof and/or pharmaceutically acceptable salt thereof and/or a pharmaceutically acceptable solvate thereof. Claim 1 consists of a generic definition of the compounds of formula (I). This definition is intended to encompass, at least, the compounds of each of the 36 examples of US '953.

In contrast, the scope of the compounds that may be used in the claimed methods of treatment in the subject application is limited to the specific compound, 5-(4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl)-2,4-thiazolidinedione (claim 17) and a pharmaceutically acceptable salt thereof (claim 18), or a tautomeric form thereof, or a hydrate thereof. Moreover, claims 17 and 18 are specifically limited to:

oral administration of the recited compound to a human,

administration of the recited compound one to six times a day, and

administration of the compound to provide a daily dosage in the range of 0.01 mg/kg to 21.4 mg/kg.

Applicant respectfully submits that there is nothing in claims 53 or 55 of US '952, considered alone or in combination with any prior art, that would render obvious the method of treatment that comprises administration of any single selected compound that is encompassed within the genus of claim 53 or 53, let alone the administration of a compound selected from any one of Examples 1-36, or specifically, the oral administration of 5-(4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl)-2,4-thiazolidinedione, or a pharmaceutically acceptable salt thereof, one to six times a day, at a daily dosage in the range of 0.01 mg/kg to 21.4 mg/kg. {"The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious." *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir 1994). The Federal Circuit has declined to extract from *Merck & Co. v. Biocraft Laboratories Inc.* 873 F.2d 804,10 USPQ2d 1843(Fed. Cir. 1989) the rule "that regardless of how broad, a disclosure of a chemical genus renders obvious any species that happens to fall within it." *In re Jones*, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir 1992)}.

In addition, Applicant respectfully submits that the presently claimed methods of treatment of Type II diabetes are distinct from the previously claimed methods of treatment and/or prophylaxis of hyperglycemia (or hyperglycaemia). Moreover, contrary to the Examiner's assertion, Applicant wishes to make clear that the subject specification does not

equate the treatment of hyperglycemia with the treatment of Type II diabetes. The specification, at page 1, lines 17-21, reads:

> "It has now surprisingly been discovered that certain novel substituted-thiazolidinedione derivatives show improved blood-glucose lowering activity and are therefore of potential use in the treatment and/or prophylaxis of hyperglycemia and are of particular use in the treatment of Type II diabetes."

Applicant respectfully notes that there is nothing in the above statement that equates the treatment of hyperglycemia with the treatment of Type II diabetes. If anything, the statement distinguishes between the use of the novel compounds for such treatments. In particular, the statement reads that the novel compounds of the invention are of "*potential use* in the treatment and/or prophylaxis of hyperglycemia" and that these compounds are of "*particular use* in the treatment of Type II diabetes."

Applicant notes that it is established in the art that hyperglycemia is a "condition" and that diabetes as a "disease syndrome." Black's Medical Dictionary (35th ed. 1987), defines 'hyperglycemia' to mean:

> "an excess of sugar in the blood, the *condition* accompanying diabetes mellitus. The amount of sugar normally present in the blood is dependent upon how much sugar has been consumed, but in the fasting state it runs around 80 to 100 milligrams per 100 milliliters of blood. A fasting blood glucose level of sugar above this is regarded as hyperglycemia; in diabetes mellitus (qv) the sugar may rise to four or five times that amount." (*emphasis added*)

The Cecil Textbook of Medicine (1988 Edition) defines diabetes as a "disease syndrome" which can be classified into five categories (Table 231-1), as follows:

(1) Insulin dependent, or Type I diabetes;

(2) Non-insulin dependent, or Type II diabetes;

(3) Secondary diabetes, including diabetes arising from pancreatic disease or a hormonal imbalance, drug-induced diabetes and diabetes associated with specific genetic syndromes;

(4) Impaired glucose tolerance; and

(5) Gestational diabetes.

See the complete definition of "diabetes mellitus" in Black's Medical Dictionary and Cecil's Textbook of Medicine in the Information Disclosure Statement filed herewith. Each of these disease syndromes is associated with conditions other than hyperglycemia. Accordingly, treatment of hyperglycemia could comprise treatment of Type II diabetes or another category of

diabetes, such as secondary diabetes, impaired glucose tolerance or another disease syndrome of which hyperglycemia is a condition associated therewith.

Applicant respectfully submits that treatment of the specific disease syndrome, Type II diabetes, is distinct from the treatment of the condition, hyperglycemia.

In view of the foregoing amendments and remarks, Applicant respectfully submits that the presently claimed invention is non-obvious and patentably distinct from claims 53 and 55 of US '953 and that subject application is in condition for allowance. If the Examiner has any remaining objections or concerns, the Examiner is respectfully requested to contact Applicant's undersigned attorney to resolve such issues and advance the case to issue.